WHAT IS CLAIMED:

1. A method for treating benign prostatic hypertrophy (BPH) comprising administering a therapeutically effective amount of an energolytic agent (EA) to a human subject in need of such treatment, wherein the energolytic agent is an agent that interferes with energy metabolism in prostate epithelial cells.

2. A method for reducing a symptom associated with BPH comprising administering a therapeutically effective amount of an energolytic agent (EA) to a human subject exhibiting the symptom, wherein the energolytic agent is an agent that interferes with energy metabolism in prostate epithelial cells.

3. A method of reducing prostate size in a human subject, comprising administering a therapeutically effective amount of an energolytic agent (EA) to the subject, wherein the energolytic agent is an agent that interferes with energy metabolism in prostate epithelial cells.

4. A method for prophylaxis of BPH comprising administering a prophylactically effective amount of an energolytic agent (EA) to a human subject, wherein the energolytic agent is an agent that interferes with energy metabolism in prostate epithelial cells.

5. The method of any of claims 1 to 4 wherein the energolytic agent is selected from the group consisting of 2-deoxyglucose, 3-bromopyruvate, gossypol, oxamate, iodoacetate, apoptolidin, and londamine.

6. The method of any of claims 1 to 4 wherein the energolytic agent is an analog of a compound selected from the group consisting of 2-deoxyglucose, 3-bromopyruvate, gossypol, oxamate, iodoacetate, apoptolidin, and londamine.

7. The method of any of claims 1 to 6 wherein the subject is neither diagnosed with nor under treatment for cancer.

8. The method of any of claims 1 to 7 wherein the subject has a serum PSA greater than about 2 ng/ml.

9. The method of claim 8 wherein the subject has a serum PSA less than about 10 ng/ml.

10. The method of any of claims 1 to 9 wherein the subject has previously been treated for BPH.

11. The method of any of claims 1 to 9 wherein said energolytic agent is administered in combination with an other treatment for BPH.

12. The method of claim 11 wherein the other treatment for BPH comprises administration of an agent that interferes with energy metabolism in prostate epithelial cells.

13. The method of any of claims 1 to 12, wherein the energolytic agent is administered at least once daily for at least five days.

14. The method of any of claims 1 to 13 wherein, when compared to a baseline prior to the initiation of treatment, the subject's:

a) AUASI or IPSS score is decreased by at least 3 points, optionally by at least about 5 points;

b) prostate size has decreased by at least about 20%, optionally at least about 40%; and/or

c) serum PSA levels have decreased by at least about 20%, optionally at least about 40%,

when determined on or after 60 days after the initiation of treatment.

15. A method for treating BPH comprising (a) diagnosing BPH in a patient, (b) administering an EA to the patient and (c) determining whether one or more manifestations of BPH are reduced in said patient.

16. A method for treating BPH comprising (a) administering an energolytic agent to a patient diagnosed with BPH and (b) determining whether one or more manifestations of BPH are reduced in said patient.

17. The method of claim 15 or 16 wherein the energolytic agent is selected from the group consisting of 2-deoxyglucose, 3-bromopyruvate, gossypol, oxamate, iodoacetate, apoptolidin, and londamine.

18. The use of an energolytic agent in the preparation of a medicament for treatment or prophylaxis of benign prostatic hyperplasia in a patient.

19. The use of claim 18 wherein the patient has a serum PSA greater than 2 ng/ml, and, optionally, has a serum PSA less than about 10 ng/ml.

20. The use of claims 18 or 19 wherein the energolytic is administered in combination with another treatment for BPH.

21. A method for determining the usefulness of a compound for treatment of BPH comprising

a) contacting a citrate-producing cell with the compound

b) contacting a citrate-oxidizing cell with the compound

c) detecting a differential effect of said contacting on said citrate-producing cell compared to said citrate-oxidizing cell, wherein a differential effect indicates that the agent may be useful for treatment of BPH.

22. The method of claim 21 wherein the cells are derived from prostate.

23. The method of claim 22 wherein the cells are human.

24. The method of claim 22 wherein the citrate-producing cells and citrate-oxidizing cells are cells cultured under hypoxic conditions.

25. The method of claim 21 wherein the differential effect is induction of apoptosis that is greater in citrate-producing cells compared to citrate-oxidizing cells.

26. The method of claim 21 wherein the citrate-producing cells are a primary culture of human prostate ephthelial cells and the citrate-oxidizing cells are a primary culture of human prostate stromal cells

27. The method of claim 21 wherein the citrate-producing cells and citrate-oxidizing cells are established cell lines.

28. The method of claim 21 wherein the citrate-producing cells are LNCaP cells and the citrate-oxidizing cells are PC-3 cells.

29. A method for determining the usefulness of a compound for treatment of BPH comprising

(a) contacting a citrate-producing cell cultured under conditions of hypoxia with the compound; and

(b) identifying a compound as useful for treatment of BPH if the contacting results in a dose-dependent reduction in HIF-1α expression (measured in the nuclear fraction) of at least about 2-fold.

30. The method of claim 29 wherein the citrate-producing cell is an LNCaP cell.